UNIVERSITY OF ABERDEEN

Sustainability Case Studies

ENERGY MANAGEMENT: CHAPLAINCY HEATING SCHEDULE

The Challenge: Inefficient Heating Schedule

The Multi-Faith Chaplaincy is an 18th century building which caters to various faiths and groups on the Old Aberdeen Campus. As the different facilities and meeting rooms can be booked for any time of the day and week, the heating schedule was set to be on throughout the building from 6AM – 10PM.

The Solution: Adapting Existing Procedures

The University's Carbon Management Plan commits the institution to reduce emissions linked to energy use and to improve energy efficiency. These commitments, coupled with an active Energy Monitoring and Targeting regime, drive the implementation of sustainable and energy saving technologies across campus.

In this instance, the Chaplaincy staff already notified campus security every week of the planned building occupancy to avoid confusion in the evenings. The Energy Management team in Estates decided to use this same timetable to create weekly heating schedule for the Chaplaincy. By implementing this schedule, the Energy Management team could ensure that only the necessary rooms were heated throughout the week.

The Results: Significant Savings

The Energy Management team started this project in August 2015, and it is expected to continue for the foreseeable future. By implementing the weekly heating schedule, the natural gas consumption for heating in the Chaplaincy went from 103,750kWh to 64,598kWh in one year. This equates to a 38% reduction and a saving of £534.61.

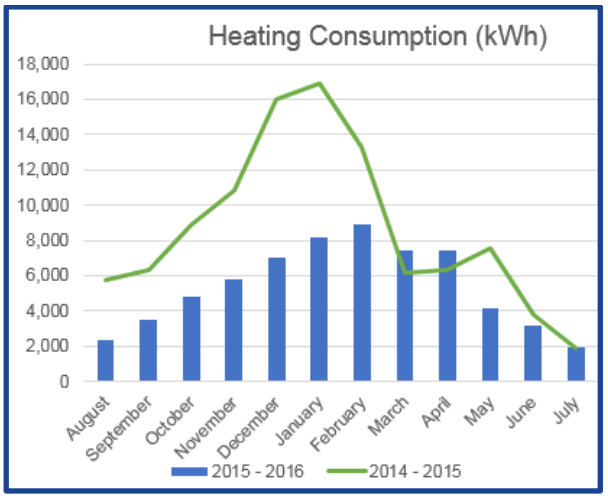

Figure 1: Yearly Heating Consumption

Additionally, the carbon dioxide emissions associated with heating the Chaplaincy were reduced by 7.2 tonnes.

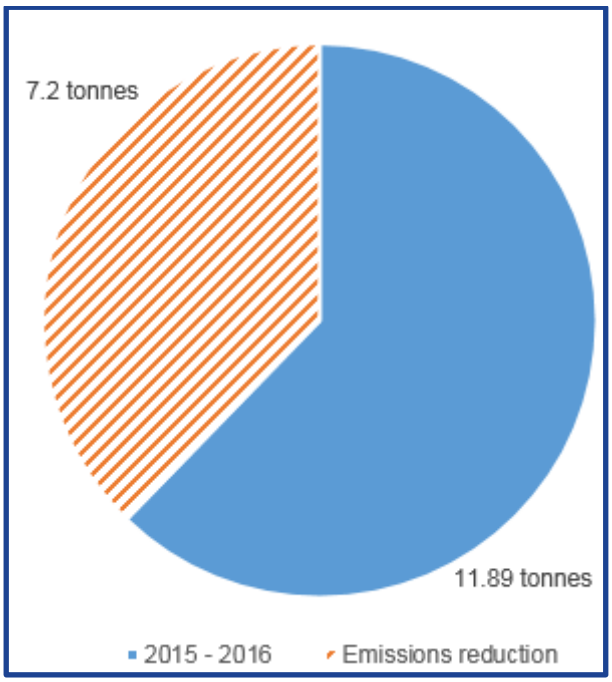

Figure 2: Carbon Dioxide Emissions (CO_2tonnes)

Lessons Learned

- This project highlights that it isn't always necessary to spend money to reduce a building's energy consumption.

- Tailoring heating schedules to match building occupancy is a simple and cost effective method of reducing energy demand throughout the year. This practice could be particularly useful during the winter months when heating demands are high.